REMARKS

The Office action has been carefully considered. Claims 1-43 are now pending in this application. The Office action rejected claims 1-20, 23-29, and 31-34 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,764,955 to Doolan ("Doolan"). Further, the Office action rejected claims 35 and 38 under 35 U.S.C. § 102(b) as being anticipated by "Information Brokering in an Agent Architecture" by Martin et al. ("Martin"). Still further, the Office action rejected claims 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Doolan in view of U.S. Patent No. 5,875,327 to Brandt ("Brandt"). Finally, the Office action objected to claim 5 for having an incorrect dependency. Applicants have amended claim 5 to correct the dependancy as directed by the Office action. Regarding the rejections, applicants respectfully disagree.

Applicants thank the Examiner for indication that claims 39-43 are allowable and indication that claims 30, 36, and 37 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

By present amendment, claims 1, 5, 11, 14, 28, 32, and 35 have been amended. Applicants submit that the claims as filed were patentable over the prior art of record, and that the amendments herein are for purposes of clarifying the claims and/or for expediting allowance of the claims and not for reasons related to patentability. Reconsideration is respectfully requested.

Applicants thank the Examiner for the interview held (by telephone) on January 13, 2004. During the interview, the Examiner and applicants' attorney

discussed the claims with respect to the prior art.   The essence of applicants' position is incorporated in the remarks below.

Prior to discussing reasons why applicants believe that the claims in this application are clearly allowable in view of the teachings of the cited and applied references, a brief description of the present invention is presented.

The present invention is directed to a computer-implementable method for handling requests for information between clients and providers. In one embodiment of the present invention, a client is an object that may request information that may be provided by one or more providers. The one or more providers, however, may utilize an unrecognized interface or protocol for communication. As such, a client in a conventional system would be required to store information about a large number of possible interfaces and protocols because it is not known which provider can provide the requested information. In the present invention, however, a manager isolates the client from the plurality of providers such that the manager stores the multitude of interface and protocol information. As a result, the client needs only to interface with a single element (the manager) when requesting information.

In various other embodiments, the manager is also operable to communicate with each provider to determine each provider's capability for handling client requests, operable to query several providers at once, and operable to access a static database called a repository for information that rarely changes. Note that the above description is for example and informational purpose only and should not be used to interpret the claims, which are discussed below.

Turning to independent claim 1 and dependent claims 2-10, the Office action rejected these claims as being anticipated by Doolan. Applicants respectfully disagree.

Claim 1, as amended, recites a system for providing system information to a client, comprising, (1) a plurality of providers, each provider corresponding to a source of system information and including a provider access interface, (2) a repository, the repository including data that identifies which of the providers provide system information that a client may request, and (3) a manager that isolates the client from the providers, including an access interface that receives a client request for system information. Further, claim 1 recites that the manager is configured to (a) access the repository to determine a set of at least one provider that is needed to satisfy the request, (b) receive a response from the at least one provider, the response indicating whether the provider is capable of handling the client request, (c) communicate with each provider in the set via the provider access interface thereof to obtain the system information needed to satisfy the request, and (d) return data corresponding to the system information received to satisfy the client request.

Applicants respectfully disagree with the rejection of claim 1 for several reasons, however, in order to expedite prosecution of the patent application, applicants have amended claim 1 to include a further limitation that recites subject matter indicated to be allowable in the Office action. Specifically, claim 1, as now amended, recites the manager configured to receive a response from the at least one provider, the response indicating whether the provider is capable of handling

15

the client request. That is, the manager is configured to receive data back from each provider that is indicative of whether the particular provider can handle the query. Having a manager configured to communicate in such a manner with each provider is advantageous because it eliminates the need for unnecessary queries that cannot be fulfilled by certain providers.

In contrast, Doolan does not teach or even suggest receiving data from a provider indicative of its handling capability. As acknowledged in the Office action with respect to reasons for the allowable subject matter, the prior art of record fails to teach the recitations of the claims in that the provider does not have a say as to whether it is capable of handling the request.

For at least these reasons, applicants submit that claim 1 is patentable over the prior art of record.

Claims 2-10 depend either directly or indirectly from claim 1. Applicants further submit that claims 2-10 are also allowable for the additional patentable elements included in these claims.

Turning to independent claim 11 and dependent claims 12-13, the Office action rejected these claims as being anticipated by Doolan. Applicants respectfully disagree.

Claim 11, as amended, recites a computer-implemented method, comprising receiving a query from a client seeking system information, the query including object class information, isolating the client from each source of information needed to respond to the query. The method further includes locating a class corresponding to the object class information and decomposing the query into

properties of the class, and, for each property. Claim 11 further recites determining if the property has a property value therefor stored in a static source or if the property value is obtainable through a provider, and if the property value is stored in a static source, retrieving the value from that source, and if the property value is obtainable through a provider, receiving a response from the provider indicating that the provider is capable of handling the client request and communicating with that provider to obtain the value, placing the property values into a result set, and returning the result set to the client.

The Office action contends that Doolan teaches each of the elements recited in claim 11 and makes substantially the same contentions as given for the rejection of claim 1. The Office action further references column 11, lines 15-44 for additional support.

respectfully disagree with the rejection of claim 11 for several reasons, however, in order to expedite prosecution of the patent application, applicants have amended claim 11 to include a further limitation that recites subject matter indicated to be allowable in the Office action. Specifically, claim 11, as now amended recites receiving a response from the provider indicating that the provider is capable of handling the client request. As shown above, Doolan fails to teach receiving a response from the provider indicating that the provider is capable of handling the client request. As acknowledged in the Office action with respect to reasons for the allowable subject matter, the prior art of record fails to teach the recitations of the claims in that the provider does not have a say as to whether it is capable of handling the request.

For at least this reason, applicants submit that claim 11 is patentable over the prior art of record.

Claims 12 and 13 depend directly from claim 11. Applicants further submit that claims 12 and 13 are also allowable for the additional patentable elements included in these claims.

Turning to independent claim 14 and dependent claims 15-27, the Office action rejected claims 14-20 and 23-37 as being anticipated by Doolan. Further, the Office action rejected claims 21 and 22 as unpatentable over Doolan in view of Brandt. Applicants respectfully disagree.

Claim 14, as amended, recites a computer-implemented method, comprising receiving a request for system information from a client; and isolating the client from each source of the system information. The method further includes determining that the request for system information corresponds to a plurality of sources of the system information, communicating with each of the plurality of sources of the system information to receive indication that a provider is capable of handling the request and to obtain data corresponding to the information requested, aggregating the data into aggregated system information that satisfies the request, and providing the aggregated system information to the client in response to the request.

As shown above, Doolan fails to teach receiving indication that a provider is capable of handling the request. As acknowledged in the Office action with respect to reasons for the allowable subject matter, the prior art of record fails to teach the

recitations of the claims in that the provider does not have a say as to whether it is capable of handling the request.

For at least this reason, applicants submit that claim 14 is patentable over the prior art of record.

Claims 15-27 depend either directly or indirectly from claim 14. Applicants further submit that claims 15-27 are also allowable for the additional patentable elements included in these claims.

With regard to claims 21 and 22, the Office action contends that Doolan fails to teach each recited element in these claims, but contends that Brandt teaches at least two system sources providing conflicting data and resolving the conflicting data. Applicants submit that neither Doolan or Brandt teach communicating with each of the plurality of sources of the system information to receive indication that a provider is capable of handling the request and to obtain data corresponding to the information requested. Applicants also submit that claims 21 and 22 are also allowable for the additional patentable elements recited in these claims.

Turning to independent claim 28 and dependent claims 29-31, the Office action rejected claims 28, 29, and 31 as being anticipated by Doolan. Applicants respectfully disagree.

Claim 28, as amended, recites a computer-implemented method, comprising receiving a query from a client requesting system information of a set of at least one managed system device; and satisfying the query while isolating the client from the system devices. The method further includes communicating with a provider to receive a response from the provider indicating that the provider is

capable of handling the query and to receive data corresponding to the query, the data including additional information with respect to the query, removing the additional information in the data, and returning a response to the client corresponding to the data with the additional information removed therefrom.

Again, as shown above, Doolan fails to teach receiving a response from the provider indicating that the provider is capable of handling the query. As acknowledged in the Office action with respect to reasons for the allowable subject matter, the prior art of record fails to teach the recitations of the claims in that the provider does not have a say as to whether it is capable of handling the request.

For at least this reason, applicants submit that claim 28 is patentable over the prior art of record.

Claims 29-31 depend directly from claim 28. Applicants further submit that claims 29-31 are also allowable for the additional patentable elements included in these claims.

Turning to independent claim 32 and dependent claims 33-34, the Office action rejected these claims as being anticipated by Doolan. Applicants respectfully disagree.

Claims 32, as amended, recites a computer-implemented method, comprising receiving a client query for requested information, communicating the query to at least one source of data on behalf of the client such that the client is isolated from each source of the data, receiving data from each source, and verifying that the data received from the at least one source indicates that the source is capable of handling the client query and corresponds to the query, and if

so, returning the data as requested information in response to the client query, and if not, adjusting the data so as to correspond to the query.

Again, as shown above, Doolan fails to teach verifying that the data received from the at least one source indicates that the source is capable of handling the client query. Again, as acknowledged in the Office action with respect to reasons for the allowable subject matter, the prior art of record fails to teach the recitations of the claims in that the provider does not have a say as to whether it is capable of handling the request.

For at least this reason, applicants submit that claim 32 is patentable over the prior art of record.

Claims 33 and 34 depend directly from claim 32. Applicants further submit that claims 33 and 34 are also allowable for the additional patentable elements included in these claims.

Turning to independent claim 35 and dependent claims 36-38, the Office action rejected claims 35 and 38 as being anticipated by Martin. Applicants respectfully disagree.

Claim 35, as amended, recites a computer-implemented method, comprising receiving a client query, determining a capability level of a provider of information for satisfying the query based on a response from the provider, providing a request for information to the source based on the capability level thereof, receiving data from the at least one source, and returning information corresponding to the data in response to the client query.

Although Martin may generally teach an environment for receiving client queries and processing client queries based on available resources, Martin fails to teach the recitations of claim 35. For example, the Office contends that Martin teaches determining a capability level of a provider of information for satisfying the query by citing "schema mapping rules" as used in Martin. Page 8 of Martin teaches that schema mapping rules determine which parts of each query should go to which sources. That is, the schema mapping rules provide mere direction and location information for a particular query. In contrast, the method, as recited in claim 35, determines a capability level of a provider of information for satisfying the query. That is, the ability of the source is determined, not its location.

In another example, claim 35 recites determining a capability level ... based on a response from the provider. Martin does not teach sources of information (providers) communicating back to the broker (manager) an indication of its capability level. As acknowledged in the Office action with respect to reasons for the allowable subject matter, the prior art of record fails to teach the recitations of the claims in that the provider does not have a say as to whether it is capable of handling the request.

Claims 36-38 depend either directly or indirectly from claim 35. Applicants submit that claims 36-38 are also allowable for the additional patentable elements included in these claims.

Claims 39-43 were indicated to be allowable.

For at least these additional reasons, applicants submit that all the claims are patentable over the prior art of record. Reconsideration and withdrawal of the

22

rejections in the Office Action is respectfully requested and early allowance of this

application is earnestly solicited.

CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that claims 1-43 are patentable over the prior art of record, and that the application is good and proper form for allowance. A favorable action on the part of the Examiner is earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney at (425) 836-3030.

Respectfully submitted,
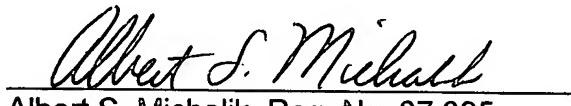
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